Duval County Epidemiology Surveillance Report

The Florida Department of Health (FDOH) in Duval County, Epidemiology

August 2014

Public Health Surveillance

Surveillance is a key core public health function and has been defined as the regular collection, meaningful analysis, and routine dissemination of relevant data for providing opportunities for public health action to prevent and control disease. Surveillance is done for many reasons such as identifying cases of diseases posing immediate risk to communities, detecting clusters and monitoring trends of disease that may represent outbreaks, evaluating control and prevention measures and developing hypotheses for emerging diseases.

Within Duval County, surveillance data is obtained through:

- Reports of notifiable diseases and conditions by providers (Merlin)
- Laboratory data from the Bureau of Laboratories
- Emergency department (ED) syndromic surveillance as monitored through Electronic Surveillance System for the Early Notification of Community- based Epidemics (ESSENCE)
- Florida Poison Information Center Network (FPICN)
- ILINet Sentinel Provider Influenza Surveillance
- Passive reports from the community
  - Notifiable diseases
  - Outbreaks

Report Summary – August 2014

The month of August included a variety of surveillance and investigation activities within Duval County. These included monitoring enteric disease activity, influenza and RSV surveillance, and investigating numerous cases of reportable illness.

Enteric disease activity continues to increase. FDOH in Duval continues to observe low levels of influenza-like illness (ILI) and respiratory viruses circulating in Duval.

The recent outbreak of severe respiratory illness associated with enterovirus D68 is highlighted in the *Other Notable Trends and Statistics* section. Lastly, this edition's *notable investigation of the month* summarizes the arboviral activity seen in Duval County residents in 2014.

Table of Contents

Notable Investigation of the Month

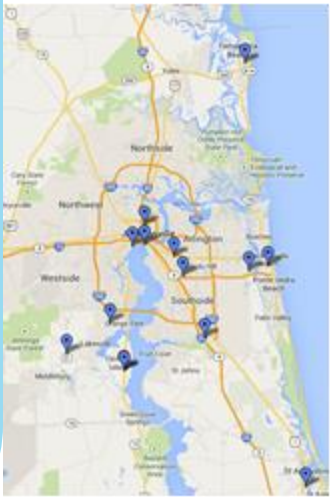
Arboviral Case Summary for Duval County Residents 2014

In early September 2014, DOH-Duval Epidemiology Program was notified of a 63 year old female with positive West Nile Virus IgM antibody in her blood serum and CSF. Subsequently, a mosquito-borne disease illness advisory was issued for Duval County. This is the first West Nile Virus case with exposure in Duval County this year. The patient is a Duval resident and is expected to make a full recovery. There have been two (2) reported cases of West Nile Virus in the state of Florida in 2014, including this case and one reported in Escambia County, also in the month of August. In addition, there has been one asymptomatic positive blood donor reported from Santa Rosa County in July.

The DOH-Duval Epidemiology Program is in close collaboration with the City of Jacksonville's Mosquito Control Division. The Mosquito Control Division has been very proactive in spraying insecticide in the affected areas through ground spraying and aerial spraying. Furthermore, the Mosquito Control Division continues to monitor light traps and sentinel chickens. There have been sixty (60) sentinel chickens and three (3) horses to have tested positive for WNV in 2014 in Florida.

Other arbovirus' reported in Duval County in 2014 includes two Chikungunya Fever cases. One case was reported in the month of June, the other in the month of July, both were imported cases from foreign countries. Other arbovirus' circulating in the Florida mosquito population include: St. Louis Encephalitis virus, Highlands J Virus and Eastern Equine Encephalitis virus.

Figure 1: ESSENCE Hospitals



The Florida Department of Health in Duval County www.DCHD.net **515 W. 6th Street, Jacksonville, FL 32206 (904) 253-1850**

Report prepared by Haley Zachary, MSPH – haley.zachary@flhealth.gov All data are provisional

Enteric Disease Overview

Summary

Reported cases of cryptosporidiosis continued to increase (Figure 2), a record twenty-nine (29) cases of cryptosporidium were reported in August, the mean number of cases for the same time period during the previous five years was 3.6 (Figure 2 & 3).

Forty (40) cases of salmonellosis were reported in August, which is less than the average over the previous five years (Figure 2&4). The mean number of cases for the same time period during the previous five years was 57 cases for August. The most represented age group of reported cases of salmonellosis for 2014 (79/139, 45.1%) occurred in the 0-4 age group. There were zero (0) reported cases of shigellosis during August (Figure 2&5). The mean number of cases for the same time period during the previous five years was 14.6 cases for August.

Reported norovirus activity is low in Florida. During August, no outbreaks of norovirus or gastrointestinal illness (suspect viral gastroenteritis) were reported in the State of Florida. However there were four reported outbreaks of cryptosporidium statewide in the month of August (Source: FDENS EpiCom & FDOH in Duval surveillance).

For prevention information, visit http://www.cdc.gov/norovirus/ & http://www.floridahealth.gov/diseases-and-conditions/norovirus-infection/index.html

ESSENCE Reportable Disease Surveillance Data

Figure 2: Reported Cases of Select Enteric Conditions by Report Month, Duval County, January 2011 – August 2014

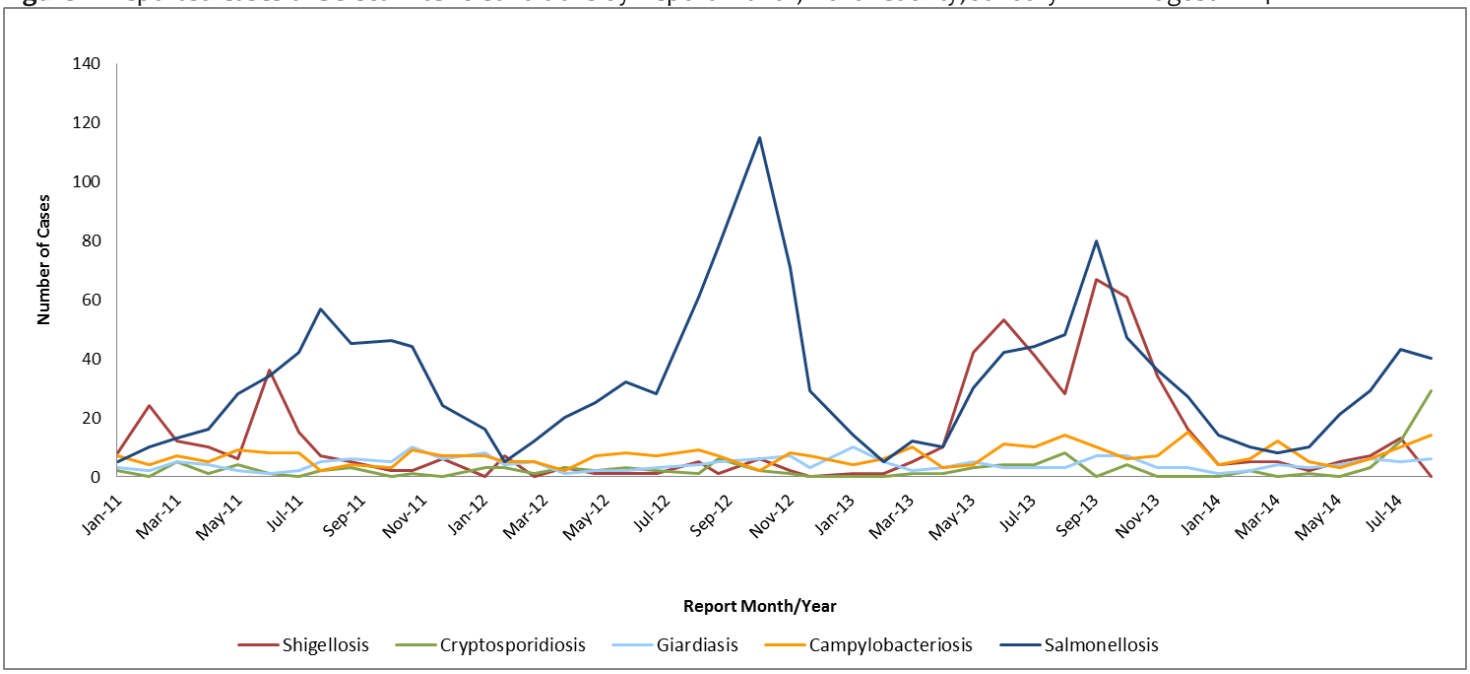
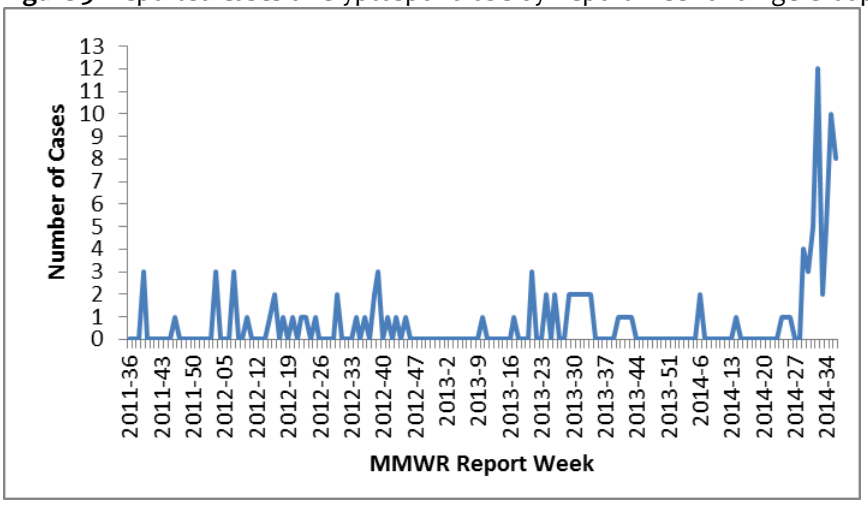
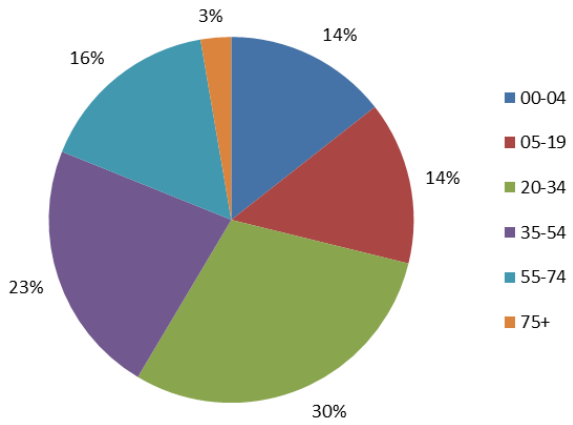


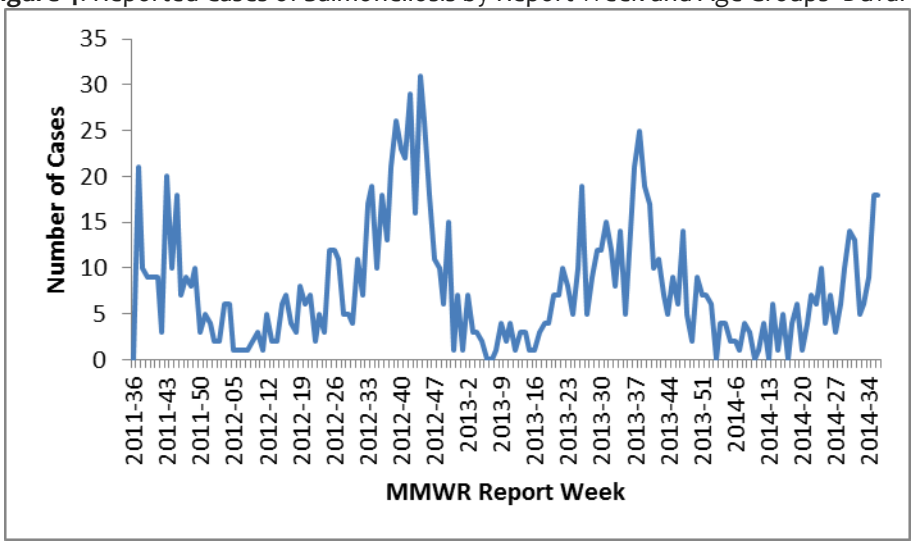
Figure 3: Reported Cases of Cryptosporidiosis by Report Week and Age Groups- Duval County – Sept. 2011 – August 2014





Enteric Disease Overview Continued

Figure 4: Reported Cases of Salmonellosis by Report Week and Age Groups- Duval County – Sept. 2011 – August 2014



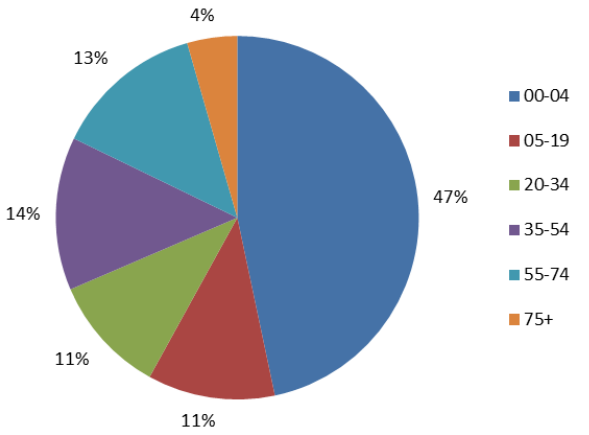
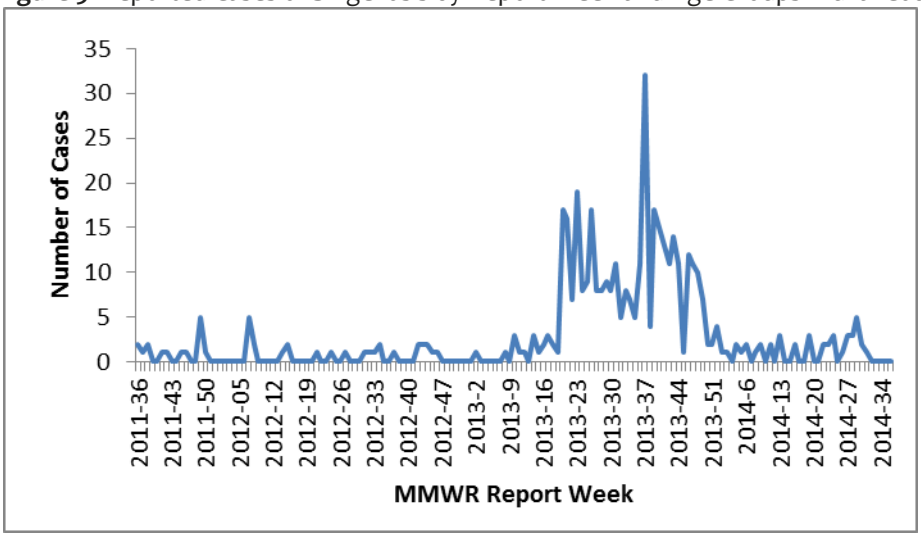


Figure 5: Reported Cases of Shigellosis by Report Week and Age Groups- Duval County – Sept. 2011 – August 2014



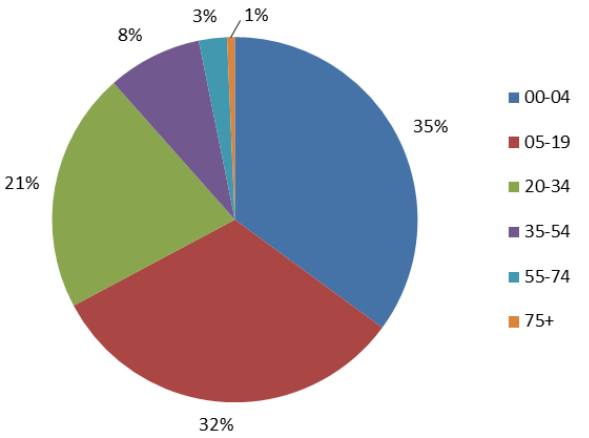
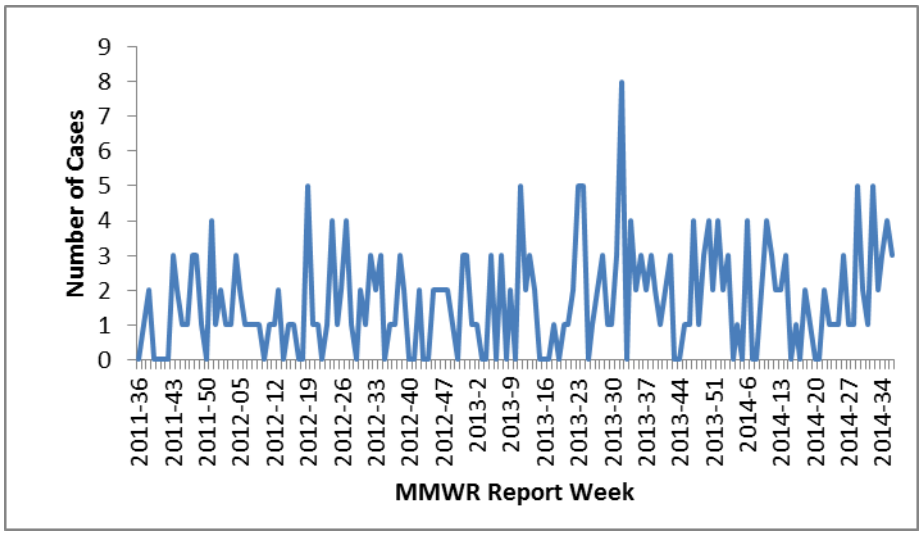
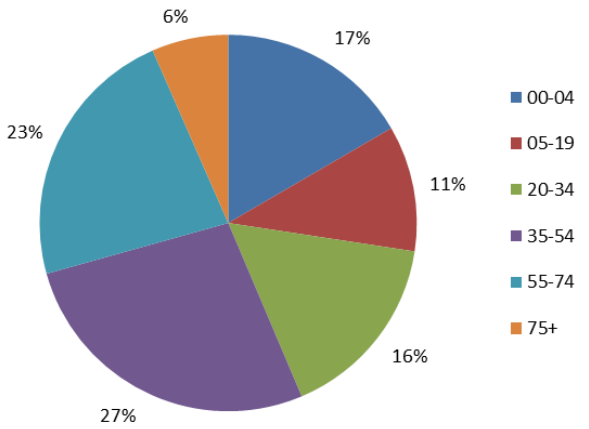


Figure 6: Reported Cases of Campylobacteriosis by Report Week and Age Groups- Duval County – Sept. 2011 – August 2014





Respiratory Disease & ILI Overview

Summary

Currently, influenza-like illness (ILI) activity is at a low level, but is beginning to show an increase. In Duval County, ED visits for ILI as monitored through ESSENCE remained above 2% for weeks 46-7 and week 11 (Figure 7), decreased below 2% from weeks 8-10 and weeks 12-23, and has remained below 1% for weeks 24-35. ESSENCE visits increased above 1% during week 36. During August, one (1) specimen tested positive for influenza A H3, as tested by the Bureau of Public Health Laboratories (BPHL). Zero (0) cases of influenza were detected by private labs during August (as reported through Electronic Lab Reporting (ELR), (Figure 8)). Other viruses known to be currently circulating, potentially causing ILI, include rhinovirus, adenovirus, parainfluenza, human metapneumovirus, and respiratory syncytial virus (RSV).

Comprehensive Statewide Influenza Surveillance: http://www.floridahealth.gov/diseases-and-conditions/influenza/Florida%20Influenza%20Surveillance%20Reports/index.html

Figure 7: Percentage of ILI from ED Chief Complaints, Florida ESSENCE - Duval County Participating Hospitals (n=8)

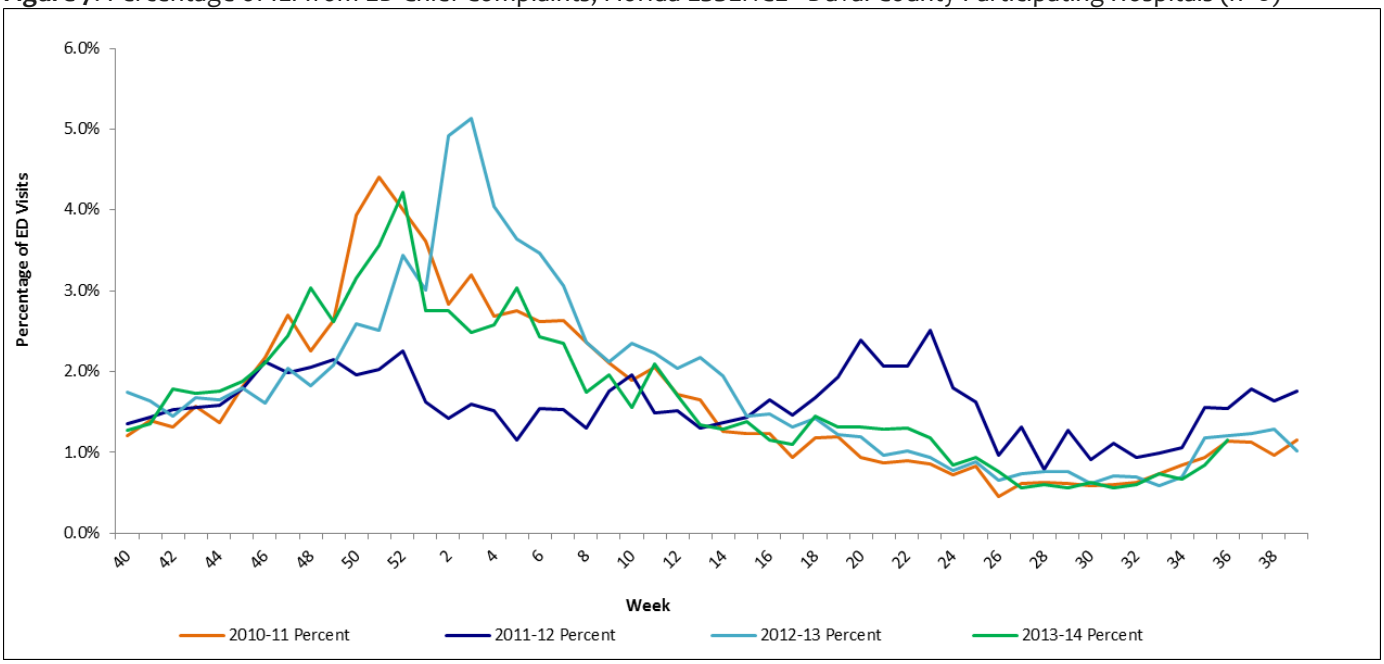
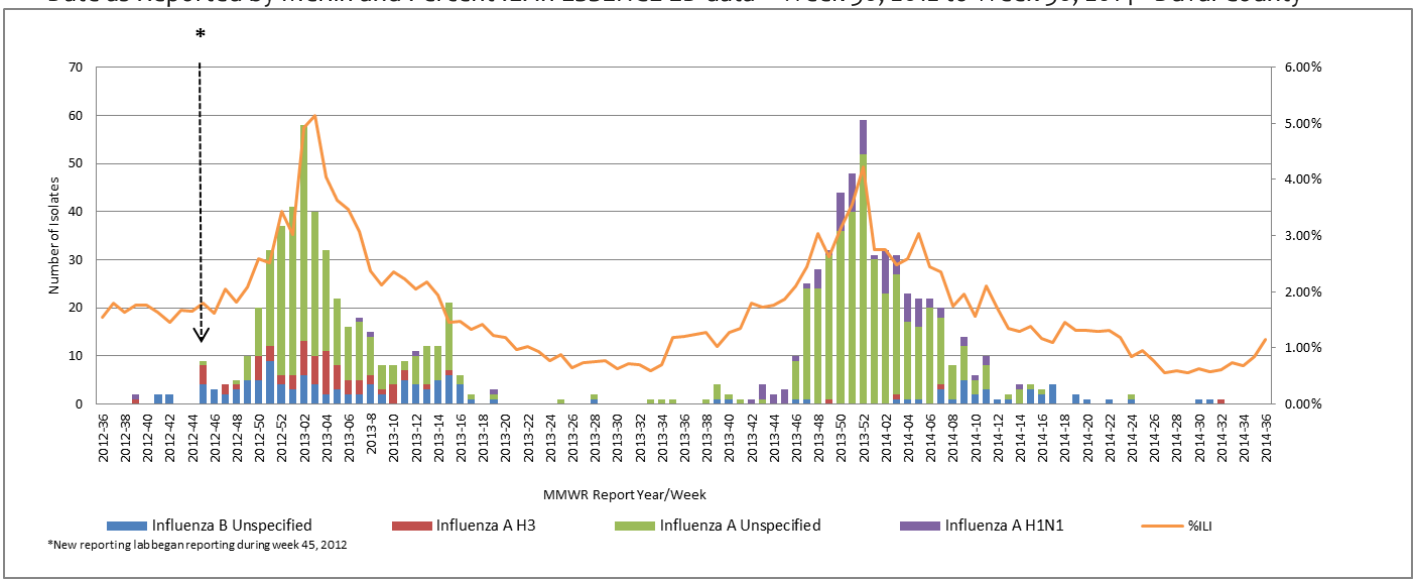


Figure 8: Number of Influenza-Positive Specimens Reported through Electronic Lab Reporting by Subtype by Lab Event Date as Reported by Merlin and Percent ILI in ESSENCE ED data – Week 36, 2012 to Week 36, 2014 - Duval County



Respiratory Virus Surveillance (Local Hospital Data)

Summary

Circulation of influenza and RSV remained at low levels for the month of August. RSV season for the North Region of Florida traditionally runs from September to March. The percent positive for influenza reported by local hospital data is 0.14% (2/141) (Figure 9 and Figure 10). The percent positive for RSV specimens during the month of August was 0.34% (7/204) (Figure11). In July, the percent positive for influenza was 0.52% and for RSV was 2.10%.

Figure 9: Local Weekly Hospital Influenza A Surveillance Data- Reported From 1/20/2014-9/6/2014

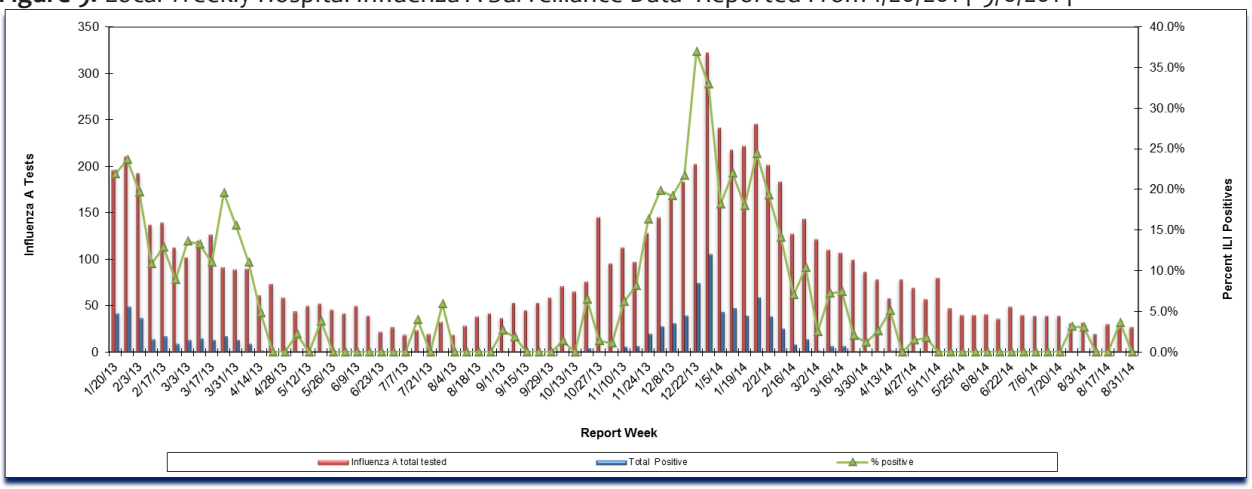


Figure 10: Local Weekly Hospital Influenza B Surveillance Data- Reported From 1/20/2014-9/6/2014

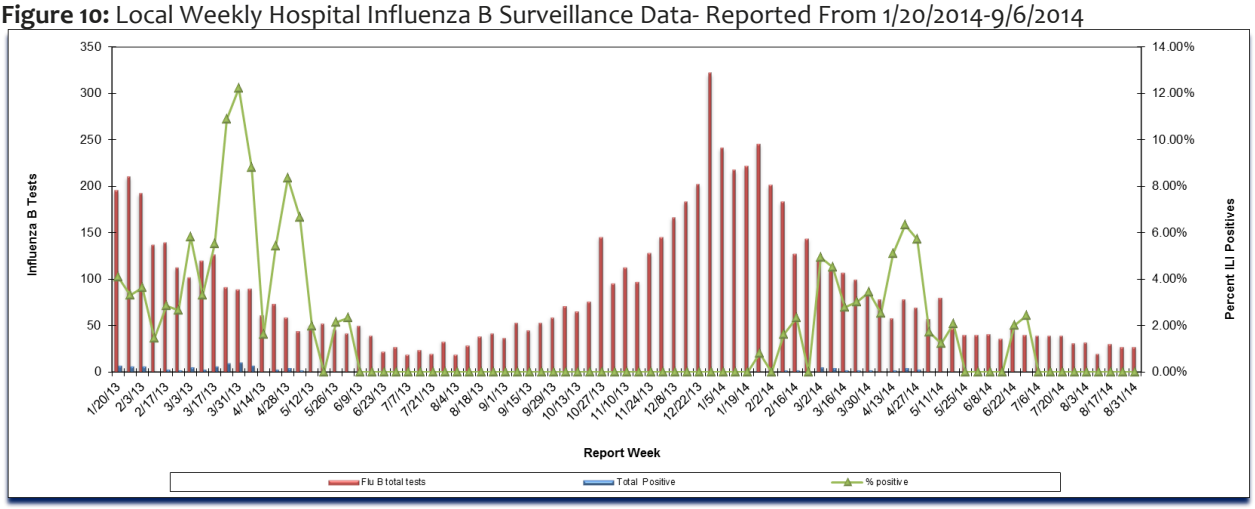
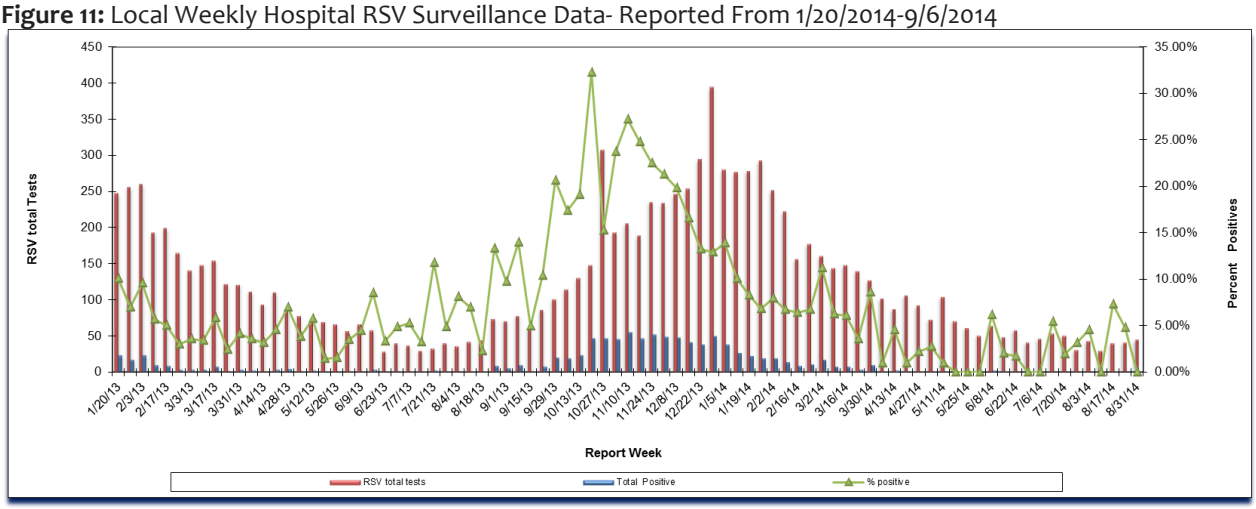


Figure 11: Local Weekly Hospital RSV Surveillance Data- Reported From 1/20/2014-9/6/2014



Florida Mosquito-Borne Disease Summary

Summary

MBI surveillance utilizes monitoring of arboviral seroconversions in sentinel chicken flocks, human surveillance, monitoring of mosquito pools, veterinary surveillance, and wild bird surveillance. MBI surveillance in Florida includes endemic viruses West Nile Virus (WNV), Eastern Equine Encephalitis Virus (EEEV), St. Louis Encephalitis Virus (SLEV), and Highlands J Virus (HJV), and exotic viruses such as Dengue Virus (DENV) and California Encephalitis Group Viruses (CEV).

Figure 12: Florida Arbovirus Surveillance (January 1- September 6, 2014)

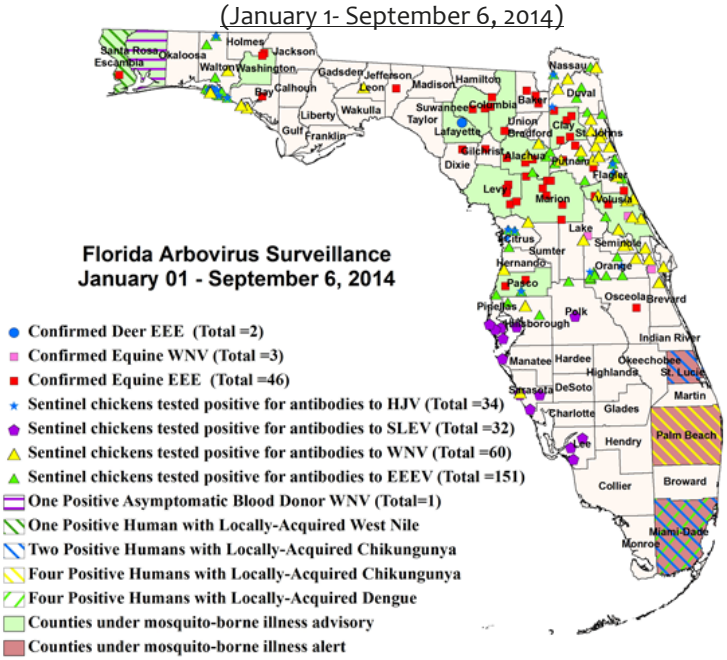


Table 1: Florida Mosquito-Borne Disease Surveillance Summary

Year to Date (through September 6, 2014)

Mosquito-Borne Disease	Human	Horses	Sentinel Chickens	Birds
West Nile Virus	1	3	60	-
St. Louis Encephalitis Virus	-	-	32	-
Highlands J Virus	-	-	34	-
California Encephalitis Group Viruses	-	-	-	-
Eastern Equine Encephalitis Virus	-	46	151	-

State of Florida 2014 Human Case Summary

West Nile Virus Illnesses Acquired in Florida: One human case of WNV illness with onset in August has been reported in 2014 from Escambia County. One asymptomatic positive blood donor has been reported from Santa Rosa County in July.

International Travel-Associated Dengue Fever Cases: Fifty-one cases of dengue with onset in 2014 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were: Bangladesh, Bolivia, Brazil (2), Caribbean, Columbia, Costa Rica (2), Cuba (18), Cuba/Bahamas, Dominican Republic (8), El Salvador, Guadeloupe, Haiti, Honduras (3), Mexico, Puerto Rico (4), Sri Lanka, Trinidad (2), and Venezuela (2). Counties reporting cases were: Alachua, Brevard, Broward (6), Clay, Collier, Highlands, Hillsborough (3), Manatee (2), Marion, Miami-Dade (21), Orange (3), Osceola (4), Palm Beach, Pinellas, Seminole, St. Lucie (2), and Volusia. Five of the cases were reported in non-Florida residents. In 2014, 25 of the 51 cases of dengue reported in Florida have been serotyped by PCR.

Dengue Fever Cases Acquired in Florida: In 2014, a total of four cases of locally acquired dengue fever have been reported. Four cases of dengue in Miami-Dade residents with onset in June, 2014 have been reported as acquired in Miami-Dade County.

International Travel-Associated Chikungunya Fever Cases: Two hundred and one cases of chikungunya with onset in 2014 have been reported in individuals with travel history to a chikungunya endemic country or area experiencing an outbreak in the two weeks prior to onset. Countries of origin were: Antigua, Bequia, Caribbean, Dominica, Dominican Republic (68), Guyana (3), Haiti (100), Honduras, Martinique (2), Phillipines, Puerto Rico (20), St. Lucia, and St. Thomas/St. Martin/Bahamas. Counties reporting cases were: Alachua (2), Brevard (3), Broward (36), Charlotte (2), Clay (2), Duval (3), Escambia, Flagler, Hernando, Highlands, Hillsborough (14), Indian River, Lake, Lee (4), Leon (2), Manatee (2), Miami-Dade (36), Okaloosa (2), Orange (23), Osceola (6), Palm Beach (32), Pasco (2), Pinellas (4), Polk (9), Santa Rosa, Sarasota (2), Seminole (4), St. Johns, St. Lucie (2), and Volusia. Fifteen of the cases were reported in non-Florida residents.

Chikungunya Fever Cases Acquired in Florida: In 2014, a total of eight cases of locally acquired chikungunya fever have been reported. Two cases of chikungunya fever in Miami-Dade residents with onset in June, 2014 have been reported as acquired in Miami-Dade County. Four cases of chikungunya fever in Palm Beach residents with onset in July, 2014 have been reported as acquired in Palm Beach County. Two cases of chikungunya fever in St. Lucie residents with onset in July and August, 2014 have been reported as acquired in St. Lucie County.

International Travel-Associated Malaria Cases: Thirty-nine cases of malaria with onset in 2014 have been reported. Countries of origin were: Angola (3), Cameroon, Dominican Republic, Equatorial Guinea (2), Ghana, Ghana/Rwanda, Ghana/Togo, Guatemala, Guyana, Haiti, Honduras, India (4), Ivory Coast (2), Kenya (2), Nigeria (5), Peru, Sierra Leone (5), Sudan, Uganda (2), and multiple sub-Saharan African countries (3). Counties reporting cases were: Broward (6), Duval, Escambia, Hernando, Hillsborough (8), Leon, Miami-Dade (7), Okaloosa, Orange (4), Osceola (2), Palm Beach (2), Pasco, Pinellas (2), Santa Rosa, and Seminole. Eight of the cases were reported in non-Florida residents. Twenty-seven cases (69%) were diagnosed with *Plasmodium falciparum*. Eight cases (21%) were diagnosed with *Plasmodium vivax*. Two case (5%) was diagnosed with *Plasmodium malariae*. Two cases (5%) were diagnosed with *Plasmodium ovale*.

Resources *See the following web site for more information:* http://www.doh.state.fl.us/Environment/medicine/arboviral/index.html

Other notable trends and statistics

Notable Trends and Statistics-Enterovirus D68 (Source: CDC.gov)

What is enterovirus D68? Enterovirus D68 (EV-D68) is one of many non-polio enteroviruses. This virus was first identified in California in 1962, but it has not been commonly reported in the US.

From August 21 to September 10, 2014, a total of 84 people in Colorado, Illinois, Iowa, Kansas, Kentucky and Missouri have been confirmed to have respiratory illness caused by enterovirus D68 (EV-D68).

What are the symptoms of EV-D68 infection? EV-D68 can cause mild to severe respiratory illness. Mild symptoms may include fever, runny nose, sneezing, cough, body and muscle aches. Severe symptoms may include difficulty breathing and wheezing. People with asthma may have a higher risk for severe respiratory illness.

How does the virus spread? Since EV-D68 causes respiratory illness, the virus can be found in respiratory secretions, such as saliva, nasal mucus, or sputum. EV-D68 likely spreads from person to person when an infected person coughs, sneezes, or touches contaminated surfaces.

How many people have been confirmed to have EV-68 infection? As of September 10, 2014, a total of 84 people in six states have been confirmed to have EV-D68.

How common are EV-D68 infections in the United States? EV-D68 infections are thought to occur less commonly than infections with other enteroviruses. However, CDC does not know how many infections and deaths from EV-D68 occur each year in the United States. Healthcare professionals are not required to report this information to health departments. Also, CDC does not have a surveillance system that specifically collects information on EV-D68 infections. Any data that CDC receives about EV-D68 infections or outbreaks are voluntarily provided by labs to CDC's National Enterovirus Surveillance System (NESS). This system collects limited data, focusing on circulating types of enteroviruses and parechoviruses.

Who is at risk? Like other enteroviruses, anyone can get infected with EV-D68. Among the recent EV-D68 infections in some states, children with asthma seemed to have a higher risk for severe respiratory illness. However, this is still being investigated.

How is it diagnosed? Many hospitals and doctor's offices can test for enteroviruses. However, most cannot do testing to determine the specific type of enterovirus, like EV-D68. State health departments and CDC can do this sort of testing.

What are the treatments? There is no specific treatment for people with respiratory illness caused by EV-D68.For mild respiratory illness, you can help relieve symptoms by taking over-the-counter medications for pain and fever. Aspirin should not be given to children. Some people with severe respiratory illness may need to be hospitalized. There are no antiviral medications currently available for people who become infected with EV-D68.

How can I protect myself? You can help protect yourself from respiratory illnesses by following these steps:
Wash hands often with soap and water for 20 seconds, especially after changing diapers.
Avoid touching eyes, nose and mouth with unwashed hands.
Avoid kissing, hugging, and sharing cups or eating utensils with people who are sick.
Disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick.
Since people with asthma are higher risk for respiratory illnesses, they should regularly take medicines and maintain control of their illness during this time. They should also take advantage of influenza vaccine since people with asthma have a difficult time with respiratory illnesses. Asthma can also be controlled by avoiding the triggers that can cause an attack, such as tobacco smoke.

Is there a vaccine? No. There are no vaccines for preventing EV-D68 infections.

What should clinicians do? Healthcare professionals should be aware of EV-D68 as a potential cause of clusters of severe respiratory illness, particularly in young children. Consider laboratory testing of respiratory specimens for enteroviruses when the cause of infection in severely ill patients is unclear. Many hospitals can test for enteroviruses, but they are probably not able to perform enterovirus typing. State health departments or CDC can be approached for typing enterovirus.

- Before sending specimens to CDC:
  - contact your state or local health department, and
  - consult with CDC by sending an email to wnix@cdc.gov
  - Report cases and clusters of severe respiratory illnesses to state and local health departments.

Recently Reported Diseases/Conditions in Florida

Table 2: Provisional Cases* of Selected Notifiable Disease, Duval County, Florida, August 2014

	Duval County						Florida					
	Month				Cumulative (YTD)		Month				Cumulative (YTD)	
	2014	2013	Mean†	Median¶	2014	2013	2014	2013	Mean†	Median¶	2014	2013
A. Vaccine Preventable Diseases												
Diphtheria	**0**	0	0	0	0	0	**0**	0	0	0	0	0
Measles	**0**	0	0	0	0	0	**0**	0	0	0	0	9
Mumps	**0**	0	0	0	0	0	**0**	0	1.2	0	0	2
Pertussis	**4**	4	4.6	4	42	18	**61**	70	60	69	588	419
Rubella	**0**	0	0	0	0	0	**0**	0	0	0	0	0
Tetanus	**0**	0	0	0	0	1	**0**	0	0.2	0	2	4
Varicella	**1**	7	2.8	2	30	42	**28**	54	40.6	40	378	465
B. CNS Diseases & Bacteremias												
Creutzfeldt-Jakob Disease	**0**	0	0	0	0	1	**0**	2	1.8	2	15	16
H. influenzae (invasive)	**2**	3	2	2	13	19	**9**	17	15.2	16	203	204
Meningitis (bacterial, cryptococcal, mycotic)	**0**	0	1.4	1	13	9	**8**	13	13.8	13	92	105
Meningococcal Disease	**0**	0	0	0	2	0	**2**	4	2	2	30	41
Staphylococcus aureus (VISA, VRSA)	**0**	0	0.2	-	0	1	**0**	0	1	-	3	10
Streptococcus pneumoniae (invasive disease)												
Drug resistant	**0**	1	1.2	1	14	24	**7**	18	21.4	21	335	399
Drug susceptible	**0**	0	0.4	0	20	22	**11**	21	20.4	21	347	426
Streptococcal Disease, Group A, Invasive	**0**	1	1.4	1	8	7	**0**	26	21.6	20	184	207
C. Enteric Infections												
Campylobacteriosis	**14**	14	8.4	9	63	65	**226**	248	189.8	204	1591	1433
Cryptosporidiosis	**30**	8	3.6	2	48	21	**440**	45	54	55	852	243
Cyclosporiasis	**0**	0	0.2	0	0	6	**6**	12	7.2	5	28	46
Giardiasis	**6**	3	7.4	5	31	38	**146**	114	159.4	162	773	715
Hemolytic Uremic Syndrome	**0**	0	0	0	0	0	**0**	1	0.4	0	4	6
Listeriosis	**0**	2	0.6	0	1	2	**6**	9	4.4	3	26	30
Salmonellosis	**50**	51	57	57	190	211	**704**	708	777.6	765	3439	3409
Shiga Toxin-Producing E. coli (STEC) Infection	**0**	0	0.6	0	1	2	**30**	9	12	12	106	82
Shigellosis	**0**	28	14.6	7	43	181	**172**	100	148	170	1729	486
Typhoid Fever	**0**	0	0	0	0	1	**2**	0	2.4	2	12	7

Recently Reported Diseases/Conditions in Florida

	Duval County						Florida					
	Month				Cumulative (YTD)		Month				Cumulative (YTD)	
	2014	2013	Mean†	Median¶	2014	2013	2014	2013	Mean†	Median¶	2014	2013
D. Viral Hepatitis												
Hepatitis A	**0**	0	0.6	0	0	3	**7**	12	12.4	11	78	66
Hepatitis B +HBsAg in pregnant women	**2**	7	4	4	38	37	**31**	39	36.6	37	348	353
Hepatitis B, Acute	**0**	0	0.4	0	13	9	**33**	28	23.8	24	272	231
Hepatitis C, Acute	**1**	0	0	0	8	2	**14**	23	12.2	11	135	165
E. Vector Borne, Zoonoses												
Animal Rabies	**1**	0	0.2	0	1	2	**11**	8	12.2	11	59	69
Ciguatera	**0**	0	0	0	0	0	**22**	12	10.4	10	50	33
Dengue Fever	**0**	0	0.2	0	0	2	**16**	27	20.6	16	74	100
Eastern Equine Encephalitis††	**0**	0	0	-	0	0	**0**	0	0.2	-	1	2
Ehrlichiosis/Anaplasmosis¶¶	**0**	0	0	-	1	0	**4**	4	2.2	-	30	18
Leptospirosis	**0**	0	0	0	0	0	**0**	0	0.2	0	0	1
Lyme Disease	**0**	0	0.2	0	1	1	**36**	33	21	19	88	88
Malaria	**0**	1	0.8	1	1	3	**10**	5	12.6	10	48	41
St. Louis Encephalitis††	**0**	0	0	-	0	0	**1**	0	0	-	1	0
West Nile Virus††	**0**	1	5.2	-	0	1	**5**	1	8.0	-	6	1
F. Others												
Botulism-infant	**0**	0	0	0	0	0	**0**	0	0	0	0	1
Brucellosis	**0**	0	0	0	1	0	**0**	0	0.8	1	3	5
Carbon Monoxide Poisoning	**0**	0	0	0	1	23	**9**	6	6.4	7	92	98
Hansens Disease (Leprosy)	**0**	0	0	0	0	0	**2**	0	1.4	1	5	5
Legionellosis	**0**	1	2.4	3	7	12	**30**	42	21.4	17	202	158
Vibrios	**2**	4	1.2	-	5	10	**5**	10	5	-	26	35

***** Confirmed and probable cases based on date of report as reported in Merlin to the Bureau of Epidemiology. Incidence data for 2014 is provisional. May include Non-Florida Cases.

† Mean of the same month in the previous five years

¶ Median for the same month in the previous five years

****** Includes *E. coli* O157:H7; shiga-toxin positive, serogroup non-O157; and shiga-toxin positive, not serogrouped, (Please note that suspect cases are not included in this report)

†† Includes neuroinvasive and non-neuroinvasive

¶¶ Includes *E. ewingii*, HGE, HME, and undetermined

Recently Reported Diseases/Conditions in Florida

Table 3: Duval County Reported Sexually Transmitted Disease for Summary for August 2014

Infectious and Early Latent Syphilis Cases

Sex	Area 4	%	Duval	%
Male	7	70%	7	70%
Female	3	30%	3	30%
Race	**Area 4**	**%**	**Duval**	**%**
White	4	40%	4	40%
Black	6	60%	6	60%
Hispanic	0	0%	0	0%
Other	0	0%	0	0%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	0	0%	0	0%
15-19	2	20%	2	20%
20-24	4	40%	4	40%
25-29	1	10%	1	10%
30-39	2	20%	2	20%
40-49	1	10%	1	10%
50+	0	0%	0	0%
Total Cases	10		10	

Chlamydia Cases

Sex	Area 4	%	Duval	%
Male	152	29%	122	30%
Female	367	71%	282	70%
Race	**Area 4**	**%**	**Duval**	**%**
White	129	25%	73	18%
Black	262	50%	243	60%
Hispanic	20	4%	17	4%
Other	108	21%	71	18%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	3	1%	3	1%
15-19	136	26%	98	24%
20-24	209	40%	161	40%
25-29	93	18%	78	19%
30-39	63	12%	52	13%
40-54	13	3%	11	3%
55+	2	0%	1	0%
Total Cases	519		404	

Gonorrhea Cases

Sex	Area 4	%	Duval	%
Male	86	46%	70	46%
Female	99	54%	83	54%
Race	**Area 4**	**%**	**Duval**	**%**
White	39	21%	28	18%
Black	107	58%	94	61%
Hispanic	7	4%	7	5%
Other	32	17%	24	16%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	1	1%	0	0%
15-19	28	15%	19	12%
20-24	76	41%	64	42%
25-29	32	17%	27	18%
30-39	33	18%	29	19%
40-54	11	6%	10	7%
55+	4	2%	4	3%
Total Cases	185		153	

Please note that STD numbers are provisional.

* Area 4 consists of Baker, Clay, Duval, Nassau, and St. Johns

For more STD surveillance data see: http://www.floridahealth.gov/diseases-and-conditions/sexually-transmitted-diseases/std-statistics/

Tuberculosis (TB) Surveillance – Duval County - 1/1/2014 through 6/30/2014 – All Data are Provisional

Fifty-three (53) cases of TB were reported by Duval County in 2013.

Table 4: TB cases reported year-to-date for 2014

	Total Cases	Percent
Classified as a disease (active)	32	35.9%
Classified as a suspect (Latent)	57	64.0%
Total cases	89	100%

For more tuberculosis surveillance data see:
http://www.floridahealth.gov/diseases-and-conditions/tuberculosis/tb-statistics/

Data Dictionary

Merlin: The Merlin system is essential to the control of disease in Florida. It serves as the state's repository of reportable disease case reports, and features automated notification of staff about individual cases of high-priority diseases. All reportable disease data presented for this report has been abstracted from Merlin, and as such are provisional. Data collected in Merlin can be viewed using http://www.floridacharts.com/merlin/freqrpt.asp.
Event Date: Reportable diseases and conditions presented within this report are reported by event date. This is the earliest date associated with the case. In most instances, this date represents the onset of illness. If this date is unknown, the laboratory report date is utilized as the earliest date associated with a case.

ILINet (previously referred to as the *Sentinel Provider Influenza Surveillance Program*): The Outpatient Influenza-like Illness Surveillance Network (ILINet) consists of more than 3,000 healthcare providers in all 50 states, the District of Columbia, and the U.S. Virgin Islands reporting over 25 million patient visits each year. Each week, approximately 1,400 outpatient care sites around the country report data to CDC on the total number of patients seen and the number of those patients with ILI by age group. For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza. The percentage of patient visits to healthcare providers for ILI reported each week is weighted on the basis of state population. This percentage is compared each week with the national baseline of 2.5%. Duval County has 5 ILInet providers that contribute to the state and national data.

NREVSS: The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based system that monitors temporal and geographic patterns associated with the detection of respiratory syncytial virus (RSV), human parainfluenza viruses (HPIV), respiratory and enteric adenoviruses, and rotavirus.

MMWR week: The week of the epidemiologic year for which the National Notifiable Diseases Surveillance System (NNDSS) disease report is assigned by the reporting local or state health department for the purposes of *Morbidity and Mortality Weekly Report* (*MMWR*) disease incidence reporting and publishing. Values for *MMWR* week range from 1 to 53, although most years consist of 52 weeks.

Syndromic Surveillance: An investigational approach where epidemiologists use automated data acquisition and generation of statistical signals, monitor disease indicators continually (real time) or at least daily (near real time) to detect outbreaks of diseases earlier and more completely than might otherwise be possible with traditional public health surveillance (e.g., reportable disease surveillance and telephone consultation).

ESSENCE: The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (**ESSENCE**) is a syndromic surveillance system for capturing and analyzing public health indicators for early detection of disease outbreaks. ESSENCE utilizes hospital emergency department chief complaint data to monitor disease indicators in the form of syndromes for anomalies. ESSENCE performs automatic data analysis, establishing a baseline with a 28-day average. Daily case data is then analyzed against this baseline to identify statistically significant increases. A yellow flag indicates a warning and a red flag indicates an alert. Currently, all eight Duval County Hospitals are sending ED data to the ESSENCE system; an additional 5, three in Clay, one in St Johns, and one in Nassau County, provide regional coverage. The 13 reporting hospitals in our region include Baptist Beaches (Duval), Baptist Clay (Clay), Baptist Downtown (Duval), Baptist Nassau (Nassau), Baptist South (Duval), Flagler (St. Johns), Memorial (Duval), Mayo (Duval), Orange Park (Clay), Shands Jacksonville (Duval), St. Vincent's (Duval), St. Vincent's Clay (Clay), and St. Vincent's Southside (Duval).

Chief Complaint (CC): The concise statement describing the symptom, problem, condition, diagnosis, physician recommended return, or other factor that is the reason for a medical encounter.

Syndrome: A set of chief complaints, signs and/or symptoms representative of a condition that may be consistent with a CDC defined disease of public health significance. ESSENCE syndrome categories include botulism-like, exposure, fever, gastrointestinal, hemorrhagic, ILI, neurological, rash, respiratory, shock/coma, injury, and other.

Count: The number of emergency department visits relating to a syndrome of query.

Other Links and Resources:
Florida Department of Health, Bureau of Epidemiology: http://www.doh.state.fl.us/disease_ctrl/epi/index.html
Florida Annual Morbidity Reports: http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/data-and-publications/fl-amsr1.html
Influenza Surveillance Reports:
http://www.floridahealth.gov/diseases-and-conditions/influenza/florida-influenza-weekly-surveillance.htm

Reportable Diseases/Conditions in Florida

Laboratory List (Practitioner Requirements Differ)

Effective June 4, 2014

Did you know that you are required* to report certain laboratory results to your county health department?

DOH-Duval Disease reporting telephone numbers:
AIDS, HIV - (904) 253-2989, (904) 253-2955
STD - (904) 253-2974, Fax - (904) 253-2601
TB Control - (904) 253-1070, Fax - (904) 253-1943
All Others- (904) 253-1850, Fax - (904) 253-1851, After Hours Emergency - (904) 434-6035

! Report immediately 24/7 by phone upon initial suspicion or laboratory test order
☎ Report immediately 24/7 by phone
• Report next business day
\+ Other reporting timeframe
✉ Submit isolate or specimen for confirmation

! Detection in one or more specimens of etiological agents of a disease or condition not listed that is of urgent public health significance; agents suspected to be the cause of a cluster or outbreak

Arboviruses

- Arboviruses not otherwise listed, including but not limited to: Flaviviridae, Togaviridae (e.g., Western equine encephalitis virus), and Bunyaviridae ✉
- California serogroup viruses (e.g., Jamestown Canyon, Keystone, Lacrosse) ✉
- Chikungunya virus
- Dengue virus ✉
- Eastern equine encephalitis virus ✉
- St. Louis encephalitis virus ✉
- West Nile virus ✉
- ! Venezuelan equine encephalitis virus ✉

General

- ☎ *Acanthamoeba* species
- • *Anaplasma* species ✉
- • Any bacterial or fungal species in CSF
- • Arsenic results indicative of poisoning
- ! *Bacillus anthracis* ✉
- ☎ *Balamuthia mandrillaris*
- ☎ *Bordetella pertussis*
- • *Borrelia burgdorferi*
- ☎ Brevetoxin associated with neurotoxic shellfish poisoning
- ! *Brucella* species ✉
- ! *Burkholderia mallei* ✉
- ! *Burkholderia pseudomallei* ✉
- • *Campylobacter* species
- \+ Cancer, pathological or tissue diagnosis of cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors (see Rule 64D-3.034, *Florida Administrative Code*)
- • Carbon monoxide, volume fraction ≥0.09 (9%) of carboxyhemoglobin in blood
- \+ CD-4 absolute count and percentage of total lymphocytes
- • *Chlamydia trachomatis*
- • *Chlamydophila psittaci* ✉
- • CJD, 14-3-3 or tau protein detection in CSF or immunohistochemical test or any brain pathology suggestive of CJD
- ! *Clostridium botulinum* and botulinum toxin from food, wound or unspecified source ✉
- • *Clostridium botulinum* and botulinum toxin from infants <12 months old ✉
- • *Clostridium tetani*
- ! Coronavirus associated with severe acute respiratory disease ✉
- ! *Corynebacterium diphtheriae* ✉
- • *Coxiella burnetii* ✉
- • *Cryptosporidium* species
- • *Cyclospora cayetanensis* ✉
- • *Ehrlichia* species ✉
- • *Escherichia coli*, Shiga toxin-producing ✉
- ! *Francisella tularensis* ✉
- • *Giardia* species
- • *Haemophilus ducreyi*
- ! *Haemophilus influenzae* isolated from a normally sterile site from children <5 years old ✉
- ☎ Hantavirus ✉
- ☎ Hepatitis A
- • Hepatitis B, C, D, E, and G viruses
- • Hepatitis B surface antigen (HBsAg)
- • Herpes simplex virus (HSV) 1 and HSV 2 from children <12 years old
- \+ Human immunodeficiency virus (HIV) test results (e.g., positive and negative immunoassay, positive and negative virologic tests) from children <18 months old
- \+ HIV, repeatedly reactive enzyme immunoassay, followed by a positive confirmatory test (e.g., Western blot, IFA). Positive result on any HIV virologic test (e.g., p24 AG, Nucleic Acid Test (NAT/NAAT) or viral culture). All viral load (detectable and undetectable) test results.
- ☎ Influenza virus from children <18 years old who died (if known) ✉
- ! Influenza virus, novel or pandemic strain isolated from humans ✉
- • *Klebsiella granulomatis*
- • Lead, all blood results (positive and negative)
- • *Legionella* species
- • *Leptospira interrogans*
- ☎ *Listeria monocytogenes* ✉
- ! Measles virus ✉
- • Mercury results indicative of poisoning
- • Mumps virus
- • *Mycobacterium leprae*
- • *Mycobacterium tuberculosis* complex ✉
- ☎ *Naegleria fowleri*
- • *Neisseria gonorrhoeae*
- ☎ *Neisseria meningitidis* isolated from a normally sterile site ✉
- • Pesticide results indicative of related illness and injury
- • *Plasmodium* species ✉
- ! Poliovirus ✉
- ! Rabies virus from animal or human
- ! Ricinine (from *Ricinus communis* castor beans) ✉
- ! *Rickettsia prowazekii* ✉
- • *Rickettsia rickettsii* and other spotted fever *Rickettsia* species ✉
- ! Rubella virus ✉
- ☎ *Salmonella* serotype Typhi ✉
- • *Salmonella* species
- • Saxitoxin associated with paralytic shellfish poisoning
- • Shiga toxin ✉
- • *Shigella* species
- ☎ Staphylococcal enterotoxin B ✉
- ☎ *Staphylococcus aureus*, intermediate or full resistance to vancomycin (VISA, VRSA) ✉
- • *Streptococcus pneumoniae* isolated from a normally sterile site from children <6 years old
- • *Treponema pallidum*
- ☎ *Treponema pallidum* from pregnant women and neonates
- • *Trichinella spiralis*
- ! Vaccinia virus ✉
- • Varicella virus
- ! Variola virus (orthopox virus) ✉
- ☎ Yellow fever virus ✉
- ! *Yersinia pestis* ✉

Vibrio and related species

- ! *Vibrio cholerae* type O1 ✉
- • *Vibrio* species excluding *Vibrio cholerae* type O1 ✉
- • *Photobacterium damselae* (formerly *Vibrio damsela*) ✉
- • *Grimontia hollisae* (formerly *Vibrio hollisae*) ✉

Viral hemorrhagic fever

- ! Viruses not listed that cause viral hemorrhagic fever ✉
- ! Arenaviruses (e.g., Lassa, Machupo, Lujo, new world) ✉
- ! Filoviruses (e.g., Ebola, Marburg) ✉

Only reportable for laboratories participating in electronic laboratory reporting (ELR)

- • Antimicrobial susceptibility results for isolates from a normally sterile site for *Acinetobacter baumannii, Citrobacter* species, *Enterococcus* species, *Enterobacter* species, *Escherichia coli, Klebsiella* species, *Pseudomonas aeruginosa*, and *Serratia* species
- • *Haemophilus influenzae* isolated from a normally sterile site, all ages
- • Hepatitis B, C, D, E, and G viruses, all test results (positive and negative) and all liver function tests
- • Human papillomavirus (HPV) DNA
- • Influenza virus, all test results (positive and negative)
- • Respiratory syncytial virus, all test results (positive and negative)
- • *Staphylococcus aureus* isolated from a normally sterile site
- • *Streptococcus pneumoniae* isolated from a normally sterile site, all ages

*Section 381.0031 (2), *Florida Statutes* (*F.S.*), provides that "Any practitioner licensed in this state to practice medicine, osteopathic medicine, chiropractic medicine, naturopathy, or veterinary medicine; any hospital licensed under part I of chapter 395; or any laboratory licensed under chapter 483 that diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health." Florida's county health departments serve as the Department's representative in this reporting requirement. Furthermore, Section 381.0031 (4), *F.S.* provides that "The department shall periodically issue a list of infectious or noninfectious diseases determined by it to be a threat to public health and therefore of significance to public health and shall furnish a copy of the list to the practitioners..."